INTERNATIONAL SEARCH REPORT

International application No.
PCT/JP03/09348

A. CLASSIFICATION OF SUBJECT MATTER
Int.Cl[7] A61K45/00, 31/4985, 31/517, 31/675, A61P3/10, 9/10, 9/12, 43/00, C07D239/94, 417/12, 471/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
Int.Cl[7] A61K45/00, 31/4985, 31/517, 31/675, A61P3/10, 9/10, 9/12, 43/00, C07D239/94, 417/12, 471/04

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
MEDLINE(STN), CAPLUS(STN), EMBASE(STN), BIOSIS(STN)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	WO 01/47935 A2 (METABASIS THERAPEUTICS, INC.), 05 July, 2001 (05.07.01), & JP 2003-519154 A Page 3, lines 16 to 24; page 99, lines 4 to 12; page 182, lines 13 to 15	1-16,22-37 17-21
P,X Y	Wright SW. et al., Allosteric inhibition of fructose-1,6-bisphosphatase by anilinoquinazo lines., J.Med.Chem., 29 August, 2002 (29.08.02); 45(18): 3865-77	1-12,17-20, 22-25,30-33 13-16,21, 26-29
X Y	Wright SW. et al., Allosteric inhibition of fructose-1,6-bisphosphatase by anilinoquinazo lines., Bioorg.Med.Chem.Lett., 08 January, 2001 (08.01.01); 11(1):17-21	1-12,19,20, 22-25,30-33 13-18,21, 26-29,34-37

☒ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier document but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
08 October, 2003 (08.10.03)	28 October, 2003 (28.10.03)
Name and mailing address of the ISA/ Japanese Patent Office Facsimile No.	Authorized officer Telephone No.

Form PCT/ISA/210 (second sheet) (July 1998)

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International application No.
PCT/JP03/09348

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	WO 99/47549 A1 (ONTOGEN CORP.), 23 September, 1999 (23.09.99), & JP 2001-294586 A Claim 2	1-12,21-25, 30-33 13-20,26-29, 34-37
Y	Knowler WC. et al., Reduction in the incidence of type 2 diabetes with lifestyle intervention or metformin., N.Engl.J.Med., 07 February, 2002 (07.02.02); 346(6):393-403. (abstract), Medline (PubMed) [online], PMID 11832527	1-37
Y	Sartor G. et al., Ten-year follow-up of subjects with impaired glucose tolerance: prevention of diabetes by tolbutamide and diet regulation. Diabetes., 1980 January; 29(1):41-9. (abstract) Medline(PubMed) [online], PMID 7380107	1-37
Y	Nolan JJ. et al., Improvement in glucose tolerance and insulin resistance in obese subjects treated with troglitazone., N.Engl.J.Med., 03 November, 1994 (03.11.94); 331(18):1188-93. (abstract) Medline(PubMed) [online], PMID 7935656	1-37
Y	Antonucci T. et al., Impaired glucose tolerance is normalized by treatment with the thiazolidine dione troglitazone., Diabetes Care., 1997 February; 20(2):188-93. (abstract) Medline (PubMed) [online], PMID 9118772	1-37

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Box I Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 38-54

because they relate to subject matter not required to be searched by this Authority, namely:

Claims 38 to 54 pertain to methods for treatment of the human body by therapy and thus relate to a subject matter which this International Searching Authority is not required, under the provisions of Article 17(2)(a)(i) of the PCT and Rule 39.1(iv) of the Regulations under the PCT, to search.

2. ☐ Claims Nos.:

because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:

because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

The matter common to claims 1 and 6 resides exclusively in using "an FBPase inhibitor" as a preventive. As described in, for example, WO01/47935A2, however, it had been publicly known to use an FBPase inhibitor as drugs such as a remedy for diabetes. Thus, use of the FBPase inhibitor as a drug cannot be considered as a technical feature making a contribution over the prior art. Concerning the use for preventing the onset of diabetes and the use for preventing hyperlipemia or arteriosclerosis (in particular, one not accompanying diabetes or impaired glucose tolerance), moreover, it seems that no close relevancy (for example, having a common mechanism) was recognized by a person skilled in the art at the point of (continued to extra sheet)

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest.

☐ No protest accompanied the payment of additional search fees.

Continuation of Box No.II of continuation of first sheet(1)

the application of the present case. Such being the case, it cannot be considered that these claims have a special technical feature in common and, therefore, claim 6 cannot be referred to as having a relationship with claims 1 to 5 and claims 7 to 54 so linked as to form a single general inventive concept.